bypass fat which is included in the ration, and (ii[i]) the ration is formulated on the basis that at least 20% of the hydroxy analog of methionine is assumed to be available for absorption by the ruminant.

Please amend claim 8 to recite:

Claim 8 (amended).   A process for formulating a ruminant food ration, the process comprising:

determining the methionine needs of the ruminant,

identifying a plurality of natural or synthetic feed ingredients and the nutrient composition of each of said ingredients wherein one of said ingredients is <u>a hydroxy analog of methionine selected from the group consisting of</u> 2-hydroxy-4-(methylthio)butanoic acid, [or a] salt<u>s</u>, amide<u>s</u> [or] <u>and</u> ester<u>s</u> thereof, and

formulating a ration from the identified feed ingredients to meet the determined methionine needs of the ruminant which comprises mixing one or more grains with [a] <u>the</u> hydroxy analog of methionine, wherein (i) the ration is formulated on the basis that at least 20% of the 2-hydroxy-4-(methylthio)butanoic acid is assumed to be available for absorption by the ruminant, <u>and</u> (ii) the ration does not comprise a bypass fat[, and (iii) the hydroxy analog of methionine is selected from the group consisting of 2-hydroxy-4-(methylthio)butanoic acid and the salts, amides and esters thereof].

REMARKS

Reconsideration is respectfully requested of the rejection of claims 1-5 under 35 U.S.C. §112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which applicants regard as the invention. Claim 1 has been amended to provide an antecedent basis for the Markush group and to structure the Markush group according to the suggestion provided by the Examiner.

Claim 8 has been amended to provide an antecedent basis for the Markush group and to structure the Markush group, that was similar to that of claim 1, according to the suggestion provided by the Examiner.

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Reconsideration is respectfully requested of the rejection of claims 1-12 under 35 U.S.C. §103(a) as being unpatentable over Meade (U.S. Pat. No. 5,631,031) in combination with Nocek et al. (U.S. Pat. No. 5,158,791).

A. Claims 1-5

Claim 1 is directed to a process for formulating a ruminant food ration. The process comprises determining the methionine needs of the ruminant, identifying feed ingredients and the nutrient composition of such ingredients wherein one of the ingredients is a hydroxy analog of methionine, and formulating a ration from the identified feed ingredients to meet the determined methionine needs of the ruminant wherein (i) the hydroxy analog of methionine is added separately from any bypass fat which is included in the ration, and (ii) the ration is formulated on the basis that at least 20% of the hydroxy analog of methionine is assumed to be available for absorption by the ruminant.

In contrast, Meade discloses the preparation and use of a water-insoluble calcium or magnesium salt of methionine as a feed supplement for ruminant animals. Meade stated that the important advantage of the disclosed water-insoluble salts was that they would "not undergo undesirable alteration or degradation in the rumen after ingestion and not be available to the rumen microorganisms" (Column 8, Lines 53-56). Contrary to the Examiner's assertions, <u>Meade does not teach the use of d,l-methionine and hydroxy analog of methionine as a methionine feed supplement,</u> but rather teaches away from its use. Meade states that d,l-methionine and methionine hydroxy analog are used in large volumes in the feed industry as amino acid supplements (Column 1, lines 33-34). However, instead of teaching the benefits of its use, Meade rather indicates that methionine hydroxy analog or other water-soluble supplements have the disadvantage of being degraded in the rumen and therefore not fully available for absorption as are the disclosed water-insoluble amino acid salts (Column 2, Lines 24-27). Meade thus teaches that the d,l-methionine and methionine hydroxy analog are not desirable as methionine supplements since they undergo degradation in the rumen.